

16. *Hepatic Abscess.* By WILLIAM STOKES, M. D.—In Great Britain, when hepatitis passes into the suppurative stage, we generally observe a change in the constitutional symptoms; the fever, which has been hitherto inflammatory, now becomes hectic. The pulse continues quick, but is diminished in strength and volume; the countenance becomes pale and collapsed, the patient feels languid, restless, and disposed to sweat, and his perspiration has a sour smell. He may also have a miliary eruption, and this continues for some time, with an increase or persistence in the size of the hepatic tumour. When these symptoms appear, there is every probability that matter is forming, or has been already formed. The patient then begins to complain of increased weight in the region of the liver, and in some cases the integuments over that organ are swollen and slightly discoloured. I have observed that in some instances the pain concentrated itself in one point, and in this situation it was afterwards found that abscess had formed. These are the ordinary symptoms which usher in or accompany the suppurative stage of hepatic inflammation; but there are also cases, even in this climate, where this marked change of symptoms is not seen, and where abscess forms rapidly and with symptoms which might be supposed to belong to the early period of the disease. This, however, is particularly true with respect to hepatic abscess in the East Indies.

I believe I mentioned in a former lecture a very curious fact; namely, that it has been often found impossible to salivate persons labouring under hepatic abscess, so that the presence of matter or not in the liver may be determined by the circumstance of the patient being susceptible or not of the full effect of mercury. The liver in this case seems to illustrate that pathological law which I alluded to in speaking of dysentery, that the more intense an inflammation, the greater is the difficulty of producing ptyalism. My friend, Staff-surgeon Marshall, and also Mr. Annesly, agree in stating, that it is exceedingly rare to find a case of hepatic abscess in which the salivary glands have been affected by mercury, and our experience of the disease in this country exactly coincides with their opinion. It has been also observed, that hepatic abscess may form in an insidious and latent manner, when it happens to be complicated with disease of other organs. This affords us an illustration of a law already laid down, that the more complicated an affection is, the more obscure is its character. Again, we may, as the result of acute hepatitis, have one or two vast cavities formed in the substance of the liver, or we may have a number of very small abscesses. I recollect a case which occurred some time ago near this city; the patient exhibited the symptoms, and was, in fact, supposed to labour under intermittent fever. After some time death took place, and on dissection a number of small abscesses were found in the liver, of which, during life, there was no symptom except that which I have just mentioned.

When an hepatic abscess attains a certain magnitude, it has a tendency to burst and discharge its contents. If it escape externally, it makes its way in a great variety of directions, sometimes in the epigastric, sometimes in the hypochondriac, sometimes in the lumbar region; and there are cases on record, in which the matter has burst in the right axilla, by a sinuous passage beneath the integuments of the chest. When it bursts internally, it sometimes perforates the diaphragm, and gets into the cavity of the pleura, or what is more commonly the case, into the substance of the lung. The matter of an hepatic abscess very rarely gets into the pleural sac, and hence we very seldom have an empyema as the result of this occurrence, because the pleura being extremely liable to adhesion as a consequence of the inflammatory process, and the passage of matter being always preceded by inflammation, the opposed surfaces of the pleura become glued together by coagulable lymph, which prevents the hepatic pus from getting into the pleura, at the same time that it favours its passage into the lung. The opening into the lung is one of ordinary occurrence; many cases of it are on record, and serious as the lesion may appear, it is, perhaps, one of the best modes in which hepatic abscess may terminate by internal opening. Many persons have recovered after such a termi-

nation, and I have seen myself three cases in which it was certain, and a fourth in which it was probable, that the matter had been expectorated by the mouth, with a favourable issue. We are, then, as far as the records of medicine and our experience in the Meath Hospital go, warranted in looking on this termination as a favourable one. Hepatic abscess may also open into the pericardium, but this is very rare, there being only one case of this kind, which is given by an American author. It may open into various parts of the intestinal canal, the stomach, duodenum, and colon; it may also discharge its contents into the right kidney, into the vena cava, or into the peritoneum, and thus cause violent peritonitis and death.

The diagnosis of these different openings of an hepatic abscess is easy, and founded on the same principle, the occurrence of new and extraordinary symptoms connected with the adjacent viscera which were not before diseased,—symptoms of a sudden discharge of pus from or into these organs. Suppose you have a case of hepatic abscess, and that during the progress of the disease the patient has sudden and enormous expectoration of purulent matter, without any preceding signs of inflammation of the lung, it is probable that the abscess has opened into the lung; or suppose that during an attack of acute hepatic disease, your patient is all at once seized with nausea, and vomits a quantity of purulent matter, and immediately after this you perceive that the tumefaction of the liver subsides. Here the matter has been discharged into the stomach, in other cases you have it discharged into the duodenum or colon. Again, you may have instances where the matter gets into the peritoneum; here you may observe the occurrence of rapid peritonitis. So that in all cases of this kind, the diagnosis is founded on the same principle, *the occurrence of discharge of pus from or into organs which previously had been considered to be in a healthy state, and this coinciding with a subsidence of the original tumour.*

In persons, who under such circumstances recover, it is natural to expect that cicatrizations should exist in the liver. Louis states that he has never seen this; with respect to our cases of hepatitis, we can only say that the fatality of the disease has afforded us no opportunity of investigating this point of morbid anatomy. Mr. Annesly, however, in his work on the diseases of India, has given drawings exhibiting this appearance. I recollect one case of a man in the Meath Hospital, who had been a soldier in the East India Company's service, and had been treated for liver disease; this man died of phthisis, and on dissection the surface of the right lobe of the liver was found puckered, forming a hollow with a cartilaginous basis, strongly resembling what we might suppose to be the cicatrix of an abscess.

When we consider the various internal openings of an hepatic abscess, we find that they admit of being divided into two classes; first, those in which the matter is effused into cavities having a communication with the exterior of the body, as the lung, digestive tube, and kidney. Here, in addition to the symptoms already alluded to, we have a sudden discharge of pus from the stomach or bowels, from the lungs, or by the urinary passages. But we may also have the matter discharged into shut cavities having no external communication, as where the contents of the abscess open into the peritoneum, pleura, or pericardium. You will readily perceive, that of these two classes of openings, those in which the matter escapes into cavities having no communication with the exterior are the most unfavourable. The confined pus excites violent and generally fatal inflammation, and we have a dangerous empyema, a rapid peritoneal inflammation, or intense pericarditis.

I stated, that of the internal openings of an hepatic abscess, one of the most favourable is that in which the matter is discharged into the right lung, and I described briefly the mechanism of this curious process. We are warranted, I think, in declaring this to be a fortunate termination, because there are many instances on record of persons having recovered under such circumstances. A very near relative of mine presented an example of this. He was attacked with symptoms of acute hepatitis, for which he was attended by some of the

most eminent physicians in Dublin. His treatment was bold and vigorous; he had free bleeding, both general and local, mercury, and every other means calculated to remove inflammation, but all proved ineffectual. His pulse became rapid; he began to sweat; the hepatic tumour increased in size, and presented a distinct sense of fluctuation; there could be no doubt of the existence of suppuration in the substance of the liver. One morning he was suddenly seized with a violent fit of coughing, and during the course of the day expectorated more than a large tea-cupful of pus; towards evening this increased, and on examination it was found that the tumour was remarkably diminished. The expectoration continued during the whole night, and in the morning it was observed that there was scarcely any appearance of the hepatic swelling. It was singular, and tends to confirm the idea that the matter had been discharged into the lung, that in the erect position, this gentleman had scarcely any expectoration, but in the horizontal, it was always extremely copious; a circumstance which you can easily understand by considering that in the recumbent posture the purulent matter would find a more easy passage into the lung. In this case, it would appear that the communication between the liver and lung was very free, for I remember that on one occasion by making pressure over the liver, he said I was forcing the matter into his chest, and the pressure was followed by an instantaneous and copious expectoration. This frequently occurred. A medical friend of mine, residing in Dublin, mentioned to me some time since the case of a large robust drayman, addicted to whiskey drinking, whom he attended for an attack of acute hepatitis. At a time when the liver was very much increased in size, and well-marked symptoms of suppuration present, he observed that sudden expectoration of pus took place, which continued for several days, with manifest subsidence of the hepatic tumour and complete recovery. Three cases of this kind came under my notice in the Meath Hospital. One of the patients had symptoms such as I have before described as exhibiting a striking similarity to yellow fever, from which he recovered, and was discharged, with no other remarkable symptoms but quick pulse. Shortly afterwards he returned, complaining of pain in the right hypochondrium, with rapid pulse, profuse night sweats, and a slight cough. At first his appearance struck me as being characteristic of phthisis, and under this impression I repeatedly examined the chest by the stethoscope and percussion, but could not detect any lesion. The man had only a slight cough, and this was totally insufficient to account for his symptoms. The nature of the case was soon manifest: one morning the patient stated that he felt as if something had given way in his chest during the night, and he was from that time expectorating *large quantities* of purulent matter. On examining the lower portion of the left side, I found that it sounded completely dull on percussion, and that the physical signs of an accumulation of fluid in the bronchial tubes were extremely distinct. That this dullness was the result of the effusion in question is proved by the previously healthy state of the lung. The very day before I had carefully examined this part of the chest, and found it quite healthy. There was not the slightest resonance of voice in this portion after the accident, because the tubes were so completely filled; so that in this case the return to health was accompanied by *increase of bronchophonia*, a fact that sets the question of the nature of the accident at rest. It may appear strange that in this case the puriform matter entered the left lung instead of the right; but this is sometimes the case, particularly when the abscess forms in the left lobe of the liver.—*Ibid.*

17. *Termination of Hepatic Inflammation in Gangrene.* By WILLIAM STOKES, M. D.—It is now agreed, that this is one of the rarest terminations of hepatitis we can meet with; in fact, that there is hardly any organic disease which so seldom occurs. Mr. Annesly states, that in all his dissections, (and these were very numerous,) he never met with a case of gangrene of the liver. Andral, who has examined some thousands of bodies, has only met with a single case; this, with another which was under the care of Dr. Graves, and appears to